511 Case Study Overview – The State of Arizona

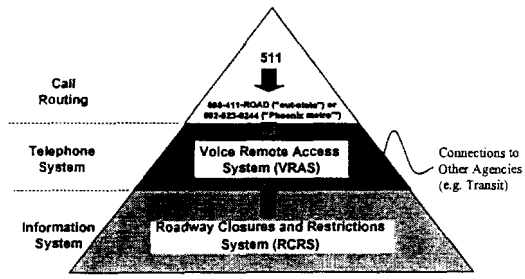
Five government sponsored phone-based traveler information systems have been identified to be operating in Arizona. The 888-411-ROAD toll-free phone system, Voice Remote Access System (VRAS), operated by Arizona DOT (ADOT) is the most relevant in terms of near-term 511 services. The VRAS is an automated interactive voice response (IVR) system that handled over 100,000 phone calls in 2000, more than a 100% increase from 1999. The VRAS often becomes overloaded with demand during inclement weather or holiday weekends.

The Roadway Closures and Restrictions System (RCRS) provides this information to the VRAS. The RCRS collects information about construction locations, traffic-related maintenance activities, weather-related road closures, and traffic incidents from various authorized agencies for both local arterial streets and urban/rural highways statewide. Presently, data is inserted from 89 locations ranging from ADOT Districts, several cities, the Highway Patrol, National Forest and Weather Services, Grand Canyon National Park as well as neighboring states. The RCRS software is available to other public agencies through a free license from Arizona DOT.

511 Vision

At least in the near-to-mid-term, Arizona DOT will continue to operate the VRAS as the gateway to traveler information in the state. The service will continue to be free to callers. Key elements of the Vision of the Arizona 511 approach are:

- Reprogram switches to point 511 calls to the VRAS
- Expand system capacity to meet anticipated demand
- Include a call forwarding option to reach the appropriate transit agency and where available, dial-a-ride services
- Deploy roadside signage to "advertise" 511



Ongoing Activities

An Arizona 511 Task Force has been established to coordinate the conversion of existing phone systems to 511 and facilitate their functional expansion. The Task Force identified several key issues and steps needed to roll out 511 services, with an initial focus on wireline calls. However, Qwest, the largest wireline carrier, has not been as responsive as hoped to work out the necessary technical and financial agreements to enable call routing.

Lessons Learned

- Task Forces for multi-agency coordination work
- If procuring IVR system, direct communications with vendor's technical resources strongly encouraged
- Carefully understand system pricing
- Standards or guidelines for menu tree design would be helpful
- Standards or guidelines for roadside signage would be helpful
- Don't be afraid to ask for technical assistance from the regulatory commission

For full report, go to: http://www.its.dot.gov/511/Arizona.pdf

March 1, 2001

511 Case Study Overview – The Commonwealth of Kentucky

Ten transportation-related phone information systems have been identified to be operating in the Kentucky. Two of these systems are most relevant in terms of near-term plans for 511 conversion:

- ARTIMIS TATS – In conjunction with the Ohio Department of Transportation, the Kentucky Transportation Cabinet (KYTC) has implemented the ARTIMIS Traffic Advisory Telephone Service (TATS) in the Cincinnati/Northern Kentucky metropolitan area which provides real-time, route specific multi-modal traveler information. Since May 1998, 211 has been used as the access number area-wide and call volume averages 70,000-80,000 calls per month (211 locally, 513/333-3333 everywhere). The ARTIMIS TATS has shown that a three digit number generates 73% more calls than a seven digit number.
- Kentucky Road Report – Kentucky operates a statewide system, including a toll-free phone number, that provides daily updates, Monday-Friday, focused on providing construction, weather and major event-related information on interstates and parkways (1-800-4KY-ROAD).

511 Vision

When completed, the Commonwealth envisions ***four regional 511 services overlaid on a statewide system***. Plans call for services such as those offered in Northern Kentucky to be available in the Louisville and Lexington metropolitan areas and the Cumberland Gap region of Southeast Kentucky. Each of those systems would offer connectivity to the Statewide Road Report that would be the default system in all other areas of the state. It is also envisioned that callers to the Road Report could be routed to any of the four regional areas at their option. The system routed to would depend upon callers location. KYTC plans to continue the service as a free call to users for the foreseeable future.

Ongoing Activities

Two key activities are Number assignment and routing conversion:

- Number assignment – On October 30, 2000, the Kentucky Public Service Commission assigned the 511 dialing code to the KYTC on a permanent, statewide basis.
- Routing conversion – KYTC is presently negotiating with major wireline carriers on the cost of providing the service. Other wireline carriers will follow. In the near-term, will convert existing wireless services to 511. Other wireless carriers will follow.

Lessons Learned

- Find and contact your state telephone association
- Make early, informal contact with the public utilities or service commission
- Most of the cost is to gather and format the information provided, not the cost of calls
- Consider human factors when designing the telephone system

For full report, go to: http://www.its.dot.gov/511/Kentucky.pdf

511 Case Study Overview – Greater Detroit Region

At least thirteen traffic, transit, and transportation-information telephone systems are currently in operation in the southeastern Michigan / Windsor, Ontario region. The focus of this case study was specifically on the three county area - Wayne, Oakland, and Macomb – which is a subset of the region's seven county Southeast Michigan Council of Governments (SEMCOG).

Michigan DOT's MITS Center is the clearinghouse for real-time freeway information for greater Detroit and the real-time ITS and incident information collected at the MITS Center is the most pertinent for a near term 511 phone system when initiated in Southeastern Michigan. MDOT's only existing statewide phone system provides construction information for the state highway system by dialing toll free 800-641-MDOT.

511 Vision

The Michigan Department of Transportation has identified that the successful implementation of 511 statewide requires a consolidation of all currently operating traveler information telephone numbers under a single point of contact. It is envisioned that Michigan's future statewide 511 system would be anchored by two regional 511 service areas – Detroit/SEMCOG and Grand Rapids - overlaid by a statewide default system (possibly an enhanced version of the existing statewide construction hotline) in all other areas of Michigan. The granularity of the rural area information should not be expected to be the same as within the Detroit and Grand Rapids areas. The greater Detroit area 511 should include southern Ontario in its watershed.

Ongoing Activities

MDOT has decided to do a one-year 511 pilot program before accepting competitive bids. It is anticipated that the pilot program would begin in the greater Detroit area and possibly cover the entire seven-county SEMCOG region.

- Kick-off Session – Ameritech (the major ILEC for Michigan) and MDOT will host a meeting of all appropriate agencies to discuss all of the major 511 implementation issues.
- Implementation Plan – MDOT will develop an action plan and Ameritech will file a tariff with the MPSC for 511; all other LECs and the wireless carriers would need to decide on filing own tariffs to connect to main service (Ameritech).

Lessons Learned

- Lead implementing agency must consider all available public transportation providers
- Service across both state lines and international borders must be ensured
- Strong public awareness and marketing campaigns should accompany 511 implementation
- Private sector transportation providers should be consulted throughout all phases of deployment

As this case study is under development, the full report is not yet available.

511 Case Study Overview – The State of Minnesota

Of the many transportation and tourism related phone information systems currently operating in Minnesota, two have been identified as most relevant in terms of near-term plans for 511 conversion:

- Winter and Summer Road and Weather Conditions: The Minnesota Department of Transportation (Mn/DOT) through the Office of Maintenance has implemented a statewide toll-free and a local Twin Cities number to access road conditions. These numbers are 1-800-542-0220 and 651-284-0511. The telephony equipment was recently upgraded from 19 incoming lines to 47 to reduce the number of missed calls. In March 2001 the system was upgraded from human operator voice-recorded information to a system that coverts text to speech through concatenation of prerecorded words and phrases.
- Minnesota Condition Acquisition and Reporting System (Mn/CARS): Through a pooled-fund project with Iowa, Washington and Missouri, Minnesota has developed and implemented Mn/CARS. Mn/CARS is an Internet-based application used by Mn/DOT Districts and the Minnesota State Patrol to enter data about road conditions, restrictions and incidents. Mn/CARS data is integrated into a database that is then accessible to travelers though the Winter and Summer Road and Weather Conditions numbers.
- Road and Weather Information System (R/WIS): Mn/DOT has implemented a statewide system of R/WIS sensors to collect real-time road surface and weather conditions. This system is then used to provide real-time road-related weather reports and forecasts. The current weather reports and near-term forecasts are then integrated into a database that is accessible to travelers through the Winter and Summer Road and Weather Conditions numbers.

511 Vision

The short-term vision for 511 in Minnesota is to provide statewide cellular access to the Winter and Summer Road and Weather Conditions information system. The long-term vision is still being developed. The final long-term vision will include input from tourism, transit, freight, parking and other transportation information stakeholders. The long-term vision will also explore the appropriate public and private roles to assure long-term sustainability and quality of service.

Ongoing Activities

- Mn/DOT has created executive and technical groups to manage 511 implementation.
- Mn/DOT is informally contacting cellular providers for purposes of enabling 511.
- Mn/DOT is coordinating with other N11 stakeholders (211, 711 and 911).
- A workshop is planned for mid-2001 to get stakeholder input to an overall Minnesota vision and deployment plan for 511.
- An evaluation of the Winter and Summer Road and Weather Condition system from a traveler perspective is planned for the spring of 2001. The evaluation will look at both information content and menus used to access the information.

For Further Information

- http://www.dot.state.mn.us/guidestar/511proj.html

511 Case Studies Overview -- San Francisco Bay Area

Since 1996, the San Francisco Bay Area Metropolitan Transportation Commission (MTC) has operated TravInfo® as a comprehensive system to gather, organize and disseminate timely information on San Francisco Bay Area traffic and road conditions, public transit routes and schedules, carpooling, highway construction and road closures, van and taxi services for disabled travelers, park-and-ride facilities, and bicycle programs. The project's day-to-day management team operates with policy direction from the Freeway Management Program Executive Committee (MTC, Caltrans District 4, and the Golden Gate Division of the California Highway Patrol (CHP)). The historical focus of TravInfo®'s data dissemination has been the Traveler Advisory Telephone System (TATS). Callers anywhere in the Bay Area can reach the TATS by dialing the same seven-digit number, 817-1717, without the need to dial an area code (there are presently six area codes in the area). Call volumes average 65,000 per month, with 70% of the calls routed to transit agencies. The service is free to callers, though local toll charges may apply.

511 Vision

At the earliest practical time, TravInfo® will be accessible via 511 in the present nine county area served by 817-1717 today. Further, as a means to provide information to those coming to but not yet in the Bay Area, MTC will be exploring ways callers outside the area will be able to access the same information (e.g., via a 1-800 toll-free number). Concurrently, MTC is upgrading its entire traveler information system to improve the quality, accuracy and timeliness of available information and increase the number of road miles of coverage. Thus, the 511 service will be supported by higher quality information over a greater geographic coverage area.

Ongoing Activities

Four key activities are:

- Call Routing: MTC is working with SBC/Pacific Bell, the dominant landline carrier to determine the most cost-effective and fairest method, technically and contractually, to route calls via 511. Additionally, MTC is determining the most efficient Interactive Voice Response system architecture to cost-effectively serve the nine-county, six area code region.
- Information Enhancements: Upgrades in data collection, data fusion, agency coordination and information dissemination will be occurring between now and Summer 2002.
- Marketing: Significant resources (over $1M annually) has been allocated in the coming years to market TravInfo®, with the principal focus of the marketing being the phone service.
- Statewide Coordination: MTC is working closely with Caltrans and other regions in California to facilitate an orderly, coordinated deployment of 511 throughout the state.

Lessons Learned

- For a regional agency seeking to implement 511 access promptly, it is helpful to find a state agency to support the regional agency's intentions.
- Key steps along the critical path for 511 access are to gain a commitment of resources by local telecommunications carriers and to have them develop appropriate service offerings.
- Substantial marketing is required to create awareness and usage of the service.

As this case study is under development, the full report is not yet available.

511 Case Study Overview – The State of Utah

A minimum of twelve transportation-related phone information systems have been identified to be operating in the state of Utah. Currently, the most relevant in terms of 511 service is the Utah Department of Transportation's (UDOT's) 1-800-492-2400 Winter Road Conditions Hotline which is updated by the maintenance workers at a minimum daily, or as conditions change. This system is currently being upgraded to include much more as detailed below.

511 Vision

Utah is in the process of developing a new Traveler Advisory Telephone system which will integrate the road weather conditions, crashes, congestion, and construction activities into this system. This system will also route calls to the transit and other agencies which provide other types of traveler information which could possibly include National Park Information for the numerous parks located in the southern part of the state. It is also envisioned that traveler information specific to the Olympic activities, such as parking information, will be provided during the 2002 Winter Olympic Games in Salt Lake City.

Utah is also currently developing an Event Tracking System which will allow state and city construction, maintenance and permits workers to enter information about their projects and update the status and impacts of the projects from the field via keyed input from a telephone. This system will be used to provide information to our website and the Traveler Advisory Telephone system.

Ongoing Activities

In addition to the development of the new Traveler Advisory Telephone system, UDOT is currently seeking legislation which will designate UDOT as the lead agency for 511 deployment in the state. Qwest, the largest wireline carrier, is in the process of developing switching software to handle the 511 calls. Their cost information should be available in March and 511 service should be available through them this summer.

We will be using Georgia Tech's Human Factors expertise to aid us in designing the new Traveler Advisory Telephone system interface in order to make the system as efficient and user friendly as possible. An Advisory Committee with core stakeholders including the Utah Transit Authority, core cities including Salt Lake, Ogden, and Provo, and others will be used to help in developing the system.

Lessons Learned

Being the last of the early adopter states, we have benefited much from the experienced learned from Kentucky and Arizona, and by participating in the national 511 Working Group Committee.

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Since January 12, 2001, the 511 Working Group has been developing materials to support the work of the 511 Policy Committee. As is evident from the list of contributors to the papers in this packet, a diverse and talented array of resources have created the material provided to you. Jim Wright of Minnesota DOT/AASHTO is responsible for the packet overall.

Tab 3: 511 Overview Paper: Ray Ruggieri, Transcom, Bob Rupert, FHWA, Rick Schuman, PBS&J

Tabs 4-7: Issue Papers: Jim Wright, AASHOT/MnDOT, Bill Jones, U.S. DOT, Kathy Stein, Howard/Stein-Hudson, Pete Costello, ITS America, Bob Rupert, FHWA, Pierre Pretorius, Kimley-Horn, Sandra Davenport, NJ Transit, Kelly Hutchinson, NCDOT, Todd Kell, Virginia DOT, Mac Lister, FHWA

Tab 8 Background Papers

- ***511: A Summary of the FCC's Report and Order***: Bill Jones, U.S. DOT, Craig Roberts, PBS&J
- ***The "Other N11's": How are They Provided?***: David Fierro and Patrick Shortal, SmartRoute Systems, Joseph Schuerger, PBS&J
- ***What do Users Want from a 511 service?***: Jane Lappin, EG&G, Melanie Crotty, MTC, Patty Babal, Navigation Technologies, Pete Costello, ITS America
- ***Wireline Telecommunications Industry Overview***: James Pol, U.S. DOT, Rose Breidenbaugh and Norbert Lucash, USTA, Rick Schuman, PBS&J
- ***Wireless Telecommunications Industry Overview***: James Pol, U.S. DOT, Kathryn Condello, CTIA, Rick Schuman, PBS&J
- ***Call Routing and its Implications***: Leon Walden, Kentucky Transportation Cabinet, James Pol, U.S. DOT, Kevin Palmer, PBS&J
- ***Telecommunications Laws and Regulations***: Todd Kell, Virginia DOT, Mark Johnson, Squires, Sanders & Dempsey, Pete Costello, ITS America
- ***Patents***: Todd Kell, Virginia DOT, Jerry Strigari, NJ Transit, Mark Johnson, Squires, Sanders & Dempsey, Pete Costello, ITS America
- ***Computer Telephony Terms and Technologies***: Leon Walden, Kentucky Transportation Cabinet, James Pol, U.S. DOT, Kevin Palmer, PBS&J

Tab 9: Existing Telephone Services

- ***Scan of Existing Telephone Traveler Information Services***: Carol Zimmerman, Battelle, Pierre Pretorius, Kimley-Horn, Scott Perley, Traffic.com, Mohammed Hadi, PBS&J
- ***Arizona Case Study***: Tim Wolfe, Arizona DOT, Bill Jones and James Pol, U.S. DOT, Bob Rupert, FHWA, Rick Schuman, PBS&J
- ***Kentucky Case Study***: Leon Walden, Kentucky Transportation Cabinet, Bill Jones and James Pol, U.S. DOT, Bob Rupert, FHWA, Rick Schuman, PBS&J
- ***Detroit, MI Case Study***: Louis Lambert, Michigan DOT, David Fierro and Patrick Shortal, SmartRoute Systems
- ***Minnesota Case Study***: Steve Bahler, Minnesota DOT
- ***San Francisco Bay Area Case Study***: Melanie Crotty and Emily Van Wagner, MTC, Les Jacobson, PB Farradyne, Martin Mattes, NGKE, Rick Schuman, PBS&J
- ***Utah Case Study***: Bryan Chamberlin, Utah DOT

AASHTO
APTA ITSA
US DOT

511 DEPLOYMENT COALITION

POLICY COMMITTEE

RETREAT SUMMARY

MARCH 29-30, 2001

Background

On March 8, 1999, the U.S. Department of Transportation (USDOT) petitioned the Federal Communications Commission (FCC) to designate a nationwide three-digit telephone number for traveler information. This petition was formally supported by 17 State DOTs, 32 transit operators, and 23 Metropolitan Planning Organizations and local agencies. On July 21, 2000, the FCC designated 511 as the national traveler information number.

The FCC ruling leaves nearly all implementation issues and schedules to state and local agencies and telecommunications carriers. There are no Federal requirements and no mandated way to pay for 511; however, given the national scope of the designation and the scarcity of N11 codes, USDOT and FCC expect to see some type of nationwide deployment. In 2005, the FCC will review progress in implementing 511.

While the flexibility provided in the FCC ruling is highly desirable, it also presents a challenge. There is a great deal of interest in using 511 throughout the U.S. It is expected that there will be multiple requests for 511, at least in some parts of the U.S., from DOTs, transit agencies, regional and local transportation agencies, as well as private service providers who will offer to implement 511 services for some sort of compensation. If not thoughtfully planned, 511 services could devolve into an inconsistent set of services widely varying in type, quality and cost.

511 Deployment Coalition

Mindful of both the opportunities and challenges 511 presents, the American Association of State Highway and Transportation Officials (AASHTO), in conjunction with many other organizations including the American Public Transportation Association (APTA) and the Intelligent Transportation Society of America (ITS America), with support from the USDOT, has established a 511 Deployment Coalition. The program kicked off in January 2001.

A Policy Committee of leading executives from all elements of the transportation and telecommunications sectors has been formed to guide the 511 Coalition. The goal of the 511 Coalition is **"the timely establishment of a national 511 traveler information service that is sustainable and provides value to users."** The intent is to implement 511 nationally using a bottom up approach facilitated by information sharing and a cooperative dialogue through the national associations represented on the Policy Committee. The mission of the Policy Committee is to provide guidance on how to achieve this goal. The Chairman of the Policy Committee is Elwyn Tinklenberg, the Commissioner of the Minnesota Department of Transportation. The Vice Chairmen are Greg Cook, Executive Director of the Ann Arbor Transportation Authority; and, Lawrence Yermack, President of PB Farradyne. The Chair was selected by AASHTO and Vice Chairs were selected by APTA and ITS America. Jim Wright of the Minnesota DOT has been temporarily assigned to AASHTO to serve as the staff director of the 511 Deployment Coordination Program.

Preparation and Retreat Process

It was determined that the most efficient method of initiating the work of the Coalition was to conduct a policy retreat. The 511 Policy Committee Retreat occurred March 29-30, 2001 in Palm Harbor, Florida. As is necessary for any successful retreat, advanced preparation along with a structured, focused agenda and process were the foundations for the Retreat. As will be documented, since January 2001, several meetings and support work occurred to plan, prepare for and conduct the Retreat.

Preparation

To prepare information on the key issues facing the Coalition, a Working Group of practitioners was formed to support the Policy Committee. The Working Group met twice in January for three full days and, based on these meetings and the content of the FCC ruling, identified three major issues that needed to be addressed:

- ***Content*** – Should there be some minimal level of content and quality of that content?
- ***Consistency*** – To what extent should there be some level of consistency among 511 services throughout the U.S.?
- ***Cost*** – Should 511 be free to the end user? If so, how should 511 be financed?

These issues became the cornerstones of the 511 Policy Committee Retreat. The Working Group developed short papers on each of these issues to provide some background and analysis, and make some recommendations to provoke discussion within the Policy Committee.

March 1, 2001 Policy Committee Meeting

An initial meeting of the Policy Committee was conducted on March 1, 2001 in Washington, D.C. to better orient the Policy Committee and establish a rapport among Policy Committee members prior to the Retreat. Key presentations were made on the FCC ruling on 511 and on the history of 911. In addition, a panel was conducted of telephone system operators, enabling the Policy Committee to hear firsthand how metropolitan systems, statewide systems, transit-oriented systems and wireless carrier services are provided.

Of note during the meeting was the request of the President of the National Emergency Numbers Association (NENA), the coordinating organization for 911 service providers, that there: (1) be a linkage between 511 and 911 and (2) that 511 services get deployed in a fashion that does not confuse citizens in their distinction of 511 and 911.

At the meeting, a background information packet was provided to the Policy Committee (**http://www.its.dot.gov/511/511_materials.pdf**), which contained several background papers developed by the Working Group describing topics that might be of interest to Policy Committee members as they deliberate the issues. The paper topics were:

- 511: A Summary of the FCC's Report and Order
- The Other N11s: How Are They Provided?

- Bringing 511 to Market: What do Users Want?
- Wireline Telecommunications Carrier Industry Overview
- Wireless Telecommunications Carrier Industry Overview
- Call Routing and its Implications for 511
- Legislative and Regulatory Issues
- Intellectual Property and Patents
- Computer Telephony Terms and Technologies

The packet also contained a summary of research conducted on existing telephone systems and one-page summaries of regions that have already been identified as early deployers of 511 services:

- Review of Telephone-based Traveler Information Services
- Arizona 511 Case Study Overview
- Kentucky 511 Case Study Overview *(Note: as of April 2, 2001, the Cincinnati/Northern Kentucky area was the first to have traveler information accessible via 511. 511 is currently available from all landline phones and two wireless carriers in the region. There is a 90 day transition period during which both 211 and 511 are in effect, and the remaining four wireless carriers will be transitioning to 511 during this period.)*
- Greater Detroit Region 511 Case Study Overview
- Minnesota 511 Case Study Overview
- San Francisco Bay Area 511 Case Study Overview
- Utah 511 Case Study Overview

In mid-March, the issue papers and the background material were compiled into a "Preparatory Materials" packet for the Retreat and provided in advance of the Retreat to Policy Committee and Working Group members (see **www.its.dot.gov/511/511.htm**). This material could not have been developed to the resulting quality on schedule without the efforts of several members of the Working Group.

Retreat Process

The Retreat spanned one and one-half days. The Retreat agenda and list of participants are located in Tabs A and B, respectively. Working Group members were invited to sit in on the Retreat to hear from the Policy Committee's discussions firsthand. Except in a few instances, the Working Group did not directly participate in deliberations.

After some initial remarks by the Policy Committee Chair and Vice Chairs, Dr. Christine Johnson, Director of the ITS Joint Program Office of the USDOT provided a presentation on why the USDOT sought 511 and what USDOT's hopes were for the Policy Committee's deliberations. Some of her key points and challenges to the Coalition were:

- If implemented as envisioned, 511 can help users cope with an increasingly crowded transportation system.
- This Retreat will determine how 511 develops.

- Will 511 develop into a "brand name" where consumers can develop an expectation of what a 511 service is?
- Will 511 become synonymous for traveler information the way 411 is for general information and 911 is for emergency assistance?
- Will 511 become a service that is commonly available throughout the U.S., or a service available only in a handful of states/regions?
- With constantly changing technology, market dynamics, political environments, and real and perceived consumer demands, we do not have complete information within which we can develop the policy framework for 511 – we must do the best we can.

Steve Kuciemba, Vice President of Technology of ITS America, provided a presentation summarizing information in the public domain regarding what users want from 511. The presentation, provided in Tab C, also acknowledged where gaps in knowledge exist and need to be filled.

The remainder of the first day was spent focusing on the three issues of content, consistency, and cost. Each topic was deliberated between 1.5 and 2 hours. The format for each topic was the same:

- Based on the 511 preparatory materials and personal experience, Jim Wright provided a summary of the issue to be discussed (See Tab D).
- An open discussion using a "conversation circle" technique, where 6-8 chairs are arranged in a circle. Policy Committee members could then take a seat in the circle to provide their input on the issue at hand. As chairs would fill up, the members in the circle could engage in debates and discussions. If one wished to join the debate or share a viewpoint, they would sit in an empty chair in the circle. If the chairs were full, either a chair would be added or a member in the circle would leave the circle and return to his/her seat. The "Circle" was facilitated by Kathy Stein. A specific Policy Committee member was selected to summarize the key points of the discussion. Sixty to seventy five minutes were focused on each topic. In the last few minutes of each discussion, Working Group members were invited to join the circle and share their views with the Policy Committee.
- Following the summary of the Circle by the selected Policy Committee member, Chairman Tinklenberg would conclude the session by leading the Policy Committee through the specific questions asked by the Working Group in the issue papers. Where the consensus answer was not readily evident based upon the Circle discussions, some additional discussion would occur to arrive at the most specific consensus answer possible. (The results are discussed in the next section.)

The morning of the second day (March 30) was used to further solidify the directions the Policy Committee provided to the Working Group and to agree upon the next steps of the Policy Committee (These results are also discussed in the next section.)

Collectively, the subject matter of the Retreat was chosen carefully as to successively build upon the previous discussion. This approach is illustrated in Figure 1.

The afternoon of March 30 and the Morning of March 31, the Working Group met to develop its forward plan to implement the directions of the Policy Committee.

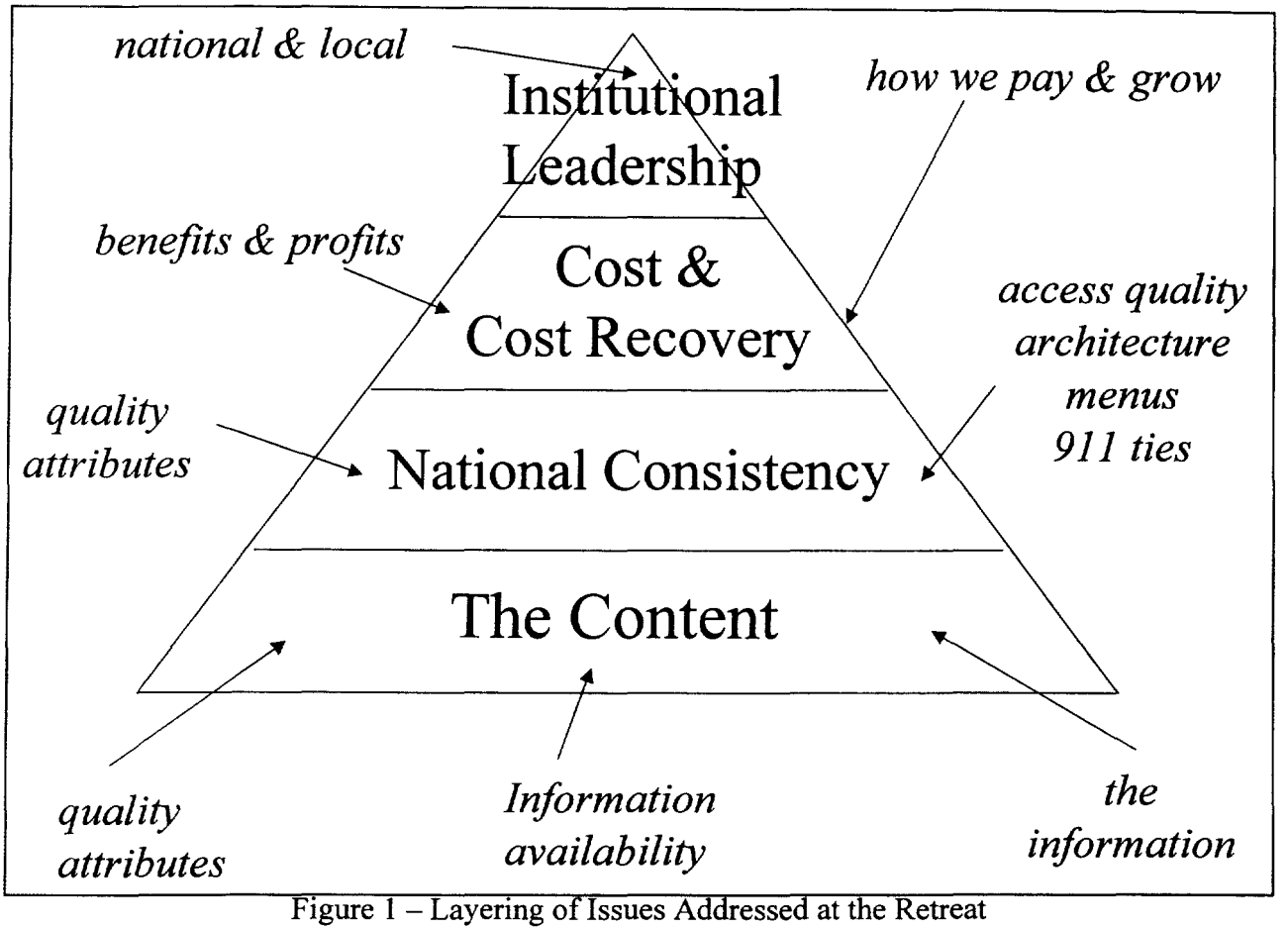

Figure 1 – Layering of Issues Addressed at the Retreat

Retreat Results

The key results of the retreat are summarized below.

Overall

The Policy Committee agreed upon a goal statement for 511 services: "A national traveler information service that is sustainable and provides value to the users."

Further, two clear underlying philosophical principles emerged during the Retreat:

1. Embrace private sector involvement while ensuring basic service availability.
2. Creative solutions are needed, welcomed, and encouraged.

The Policy Committee recognized that technology is changing rapidly and the vision for 511 needs to evolve along with technology. Accordingly, the Policy Committee encouraged the Working Group to consider both a current "Launch" model and a "Vision" model. This approach is aimed at achieving rapid introduction of services while facilitating evolution to services that over time increase the breadth, depth, and quality of service in the most cost-effective manner possible.

The Policy Committee was keenly aware that 511 could be – and should be – considered a national "brand" by the public and the media in the near future. To provide clarity and minimize confusion, an overall 511 marketing plan/branding strategy was needed as soon as practical.

Lastly, among the items discussed the second morning was the petition to the FCC by a number of wireless companies for reconsideration of recent N11 assignments, including 511. The Policy Committee agreed to send a response to the FCC from the 511 Coalition, describing its efforts to cooperatively identify and address issues related to deploying 511, including those noted in the petition for reconsideration.

Content Issues

There was consensus on the need to establish minimum service guidelines aimed at enabling both the public and private sectors to provide traveler information services and options that consumers want, and which are tailored to meet specific local needs. It was also agreed that these information services will need to grow and evolve along with the advent of new wireless/telecommunications technologies.

The Policy Committee directed the Working Group to draft content guidelines for Policy Committee review. The guidelines should:

- Identify baseline content that should be provided. Traffic, transit, construction and road weather conditions should be the point of departure for deliberations.
- Include quality levels where possible.

- Acknowledge acceptance of "peripheral" content offerings, such as additional local-option public sector content and premium, value-added private sector services. Examples include tourism information and parking information.
- Examine and address as appropriate the possible need to have "tiered" guidelines based on geography (i.e. urban and rural).
- Be based upon current experience in both highway and transit services.
- Balance the desire to maximize service offerings with the underlying baseline cost to provide each service (if the baseline content is too broad, service provision could be cost prohibitive).

The guidelines should take the form of a recommended practice or policy. Each of the sponsoring organizations (AASHTO, APTA, ITS America) should adopt the resulting guidelines, and encourage other organizations to do so as well.

Regarding the substance of the guidelines, a suggestion was made that the services provided in the pending Arizona 511 implementation could serve as a point of departure. Also, transit industry representatives clearly articulated their desire that where available, transit information should be a "top-tier" menu item.

The sense of the Policy Committee was that the guidelines should articulate a clear vision of what 511 services will be and are essential if 511 is to resonate as a "brand" to the general public. The vision should establish a clear differentiation between 511 and other N11 services, such as 311, 411 and 911. Further, the theme of "do a few things, but do them well" was recurred throughout the Policy Committee's deliberations.

National Consistency Issues

The Policy Committee adopted a philosophy in the near-term to ***provide flexibility to implementers at this early stage while ensuring that callers will recognize the services as part of a national system.*** In the longer-term, the Policy Committee desires a consistent national service and image, though it was recognized that it will take time for early implementations to evolve to being completely consistent. There was consensus on the need for the "look and feel" of basic 511 services to be the same no matter where a customer accesses the service. However, local-option public sector-oriented and value-added private sector-oriented services may vary in appearance, allowing for competitive business strategies in the marketplace.

The Policy Committee directed the Working Group to draft consistency guidelines for Policy Committee review. A number of topics areas to be considered for inclusion were identified:

- System Navigation

  This area addresses what is the user interface for phone systems. There are several elements to this topic area, including:

  - Menu trees: Should every system have a menu tree? Should there be a standard top-level menu tree? Should the menu tree structure beyond a top-level be consistent (e.g., should systems have a common navigation menu for transit-related information)?

- Voice Commands: Should consistent terms for content categories be established? Should those terms be used as voice enabled commands? Should all systems offer voice enabled commands?
- Shortcuts: Should a consistent format for shortcuts be established? Should shortcuts be part of all systems? Should shortcuts be available in voice commands in addition to numerical entry?

➢ System Access Quality

This area relates to the performance of the telephone system. Existing systems vary widely in their access quality. Some systems are designed for peak period usage, reducing or eliminating busy signals. Other systems are designed for average usage and become overloaded in high demand periods. Some systems enable users to quickly obtain information, others take much longer. Should there be consistent targets for access quality?

➢ ADA Implementation

The American with Disabilities Act (ADA) became effective in the early 1990s to provide equal rights and opportunities to disabled citizens in many areas, including employment, access to state and local government services, public transportation services, and telecommunications. While there are specific provisions in the ADA requiring equal access to 911 for the hearing impaired through special devices, called TTY or TDD, it is unclear if the ADA imposes similar requirements on 511-type services. While it is required for transit customer service centers to have TTY/TDD access, it is not common in the other types of traveler information phone systems to date, with only one non-transit centric phone system, TravInfo, having TTY/TDD access. Telecommunications Relay Services are available to the hearing impaired as a means to communicate with other people or services and this method could be used to access 511 services. Is consistent access via TTY/TDD needed?

➢ Initial Greeting

The initial greeting of each system could vary widely. Greetings could vary in length. Some could indicate their sponsoring organization; others could use the name of the program or the brand of the service. Should there be a reference to a national service in the greeting? Should there be a statement forwarding people to 911? Should there be limits on the greeting, such as time and content?

➢ Hours of System Operation

Hours of operation of existing phone services vary widely. Many, but not all, automated systems are available 24 hours a day, 7 days a week. However, information may only be updated during a more limited set of hours. Many transit information centers operate extended business day hours. Should there be consistency associated with hours of operation?

➢ Multi-lingual capabilities

In some phone systems, Spanish services are available. King County (WA) METRO utilizes AT&T interpreters to help people of all languages. In August 2000, President Clinton signed an Executive Order (13166) that was aimed at improving access to government services for people with limited English proficiency that may have some implications for 511 services. Should there be consistency associated with non-English services?

- Timestamp information

  Some automated systems in operation today will indicate in the recorded message when the information was created, enabling the caller to determine how old the report is. Some systems provide a timestamp for all information available based upon when the last update of any item occurred. Other systems timestamp each specific recorded message (e.g. a particular route). Still many other systems do not use timestamping at all. Should there be any consistency related to timestamping information?

- 511 Branding

  Roadside signing is one of the methods likely to be used to advertise and promote the availability of 511. At present, no standard practice exists for placing 511 on either fixed or dynamic signage. Should there be a consistent approach to roadside signing promoting 511?

- Geographic service areas

  The FCC ruling leaves to implementers to determine issues such as calling areas. Should there be consistency as to how states/regions establish geographic areas for 511 services? Should service areas match how the FCC defines service areas for wireline and/or wireless carriers (which are both different)?

- Consistency of content above the baseline services

  If content guidelines offer implementers the option of adding additional services, should there be consistency among similar content in different 511 services (e.g., tourism information)?

- Linkage to 911

  This issue was of great interest during the Retreat. Should each 511 system have a direct connection to the appropriate 911 center(s) in the region? If desired, does this create impossible or complex technical and regulatory problems for 511 implementers? Or is it sufficient to have a message in the initial greeting to the effect, "if this is an emergency, please hang up and dial 911?" Is consistency required at all, or should the issue be left to individual implementers to decide?

It was recognized that it will be easier to reach agreement in some areas than in others to establish consistency guidelines.

Much of the discussion in this session focused on service delivery business models. This discussion is summarized in the Cost Issues section.

Cost/Cost Recovery

The Policy Committee concluded that if possible the baseline public service content cost the end-user no more than the cost of a local wireline or wireless call, with additional charges for premium or other additional local service options being acceptable. It was also recognized that the economics will determine if this approach is feasible.

The Working Group was directed to identify, investigate, and present the Policy Committee plausible business models and the appropriateness of their application to 511. These include both public and private sector models, such as (note, these models were subsequently identified as candidates by a subset of the Working Group the day after the Retreat):

- Fee-for-service – the public sector contracts with the private sector to provide services.
- Partnership – the public sector and private sector partner(s) enter into a partnership where investment and/or revenues are shared between parties.
- Advertising – the incremental cost of providing 511 services would be supported by advertising revenues
- Portal – 511 services are provided as a component of a much broader "Audio Portal" service that provides many other types of information via the telephone.
- Franchise (exclusive) – the public sector establishes performance requirements and conducts an open negotiation with potential service providers, selecting a provider to operate 511 service in a given region based upon the best "deal" in terms of maximum service offerings and best financial terms for the public sector.
- Franchise (non-exclusive) – the public sector establishes performance requirements and enables wireline and wireless carriers to provide 511 services to their customers as long as the service they offer meets the requirements.

Analysis of the models should include descriptions of public and private sector roles and expectations, the experience and expectation of the caller, the impact on content and consistency guidelines and a generalized financial model supporting the business model. It was recognized that the prognosis for financial sustainability should be a key evaluation factor in assessing alternative business models.

The Policy Committee concluded that a better understanding of cost elements and magnitudes is needed and therefore requested the Working Group to provide the Policy Committee with a summary of nominal cost centers and magnitudes for the proposed baseline content services (both highway and transit).

The Policy Committee also discussed the potential of testing innovative service delivery and cost recovery methods, but did not reach a definitive conclusion.

Institutional Leadership and Next Steps

It was agreed that the effort to build-out a national 511 traveler information system will succeed only if the public and private sectors work together and bring the unique skills of their respective areas of expertise to this effort. It was recognized that the establishment of this 511 Coalition is an accomplishment in itself as it provides the forum for continuing cooperation and coordination of the various parties. A strong desire to continue to involve non-traditional transportation partners in the coalition, including those from both the wireline and wireless phone providers, was also expressed.

The Policy Committee determined that at least two additional meetings/retreats will be needed to reach consensus on content and consistency guidelines and relevant cost/business model related issues.

The Policy Committee selected mid-to-late August as the next meeting date. The principal objectives of the meeting will be to:

- Review, refine, and if possible, approve draft content and consistency guidelines.
- Review and determine if any policy actions are needed in the areas of cost, cost recovery, and business models.
- Review and agree upon a near-term national 511 Communications, Outreach and Marketing Plan.

The Policy Committee would then meet again 4-6 months following the August meeting. Between meetings, outreach will occur and consensus will be sought on the guidelines and policy directions. The goal of this meeting is Policy Committee approval of:

- Content and consistency guidelines to be forwarded for adoption by the sponsoring organizations (AASHTO, APTA, ITS America) and other interested organizations.
- An Integrated 511 Communications and Marketing Plan.
- Reach general agreement upon the dimensions of a forward action plan that identifies the needed actions and assigns responsibilities to carry out final policy directions.

To support these efforts, there was a sense of the Policy Committee that further consumer research is needed, particularly to understand what user's expect from services that could become, from the perspective of the caller, national in scope. Specific consumer research should be conducted to determine stated preferences on issues related to content consistency and business models, and then practical user experience should confirm or refine the results.

On March 30-31, the Working Group began to carry out the directions of the Policy Committee. Four sub-groups have been formed to develop the material needed for the August retreat:

- Content (Chair: Tim Wolfe, Arizona DOT) – Draft Content Guidelines
- Consistency (Chair: Martin Knopp, Utah DOT) – Draft Consistency Guidelines
- Business Models and Costs (Chair: Todd Kell, Virginia DOT) – Summary paper on potential business models and cost elements
- Communications, Marketing and Outreach (Chair: Carol Zimmerman, Battelle) – Draft Marketing and Outreach Plan

The Working Group will meet at least once in advance of the August Retreat to refine the materials to be presented at the Retreat and to create a vision of what 511 could be with the draft guidelines in place.

ORIGINAL

511 Deployment Coalition
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